

METHOD AND SYSTEM TO COMPOUND SILICONE COMPOSITIONS

ABSTRACT OF THE DISCLOSURE

A method and system are provided that efficiently compound high levels of inorganic filler, processing fluid and silicone polymer at a commercial rate into homogeneous filled and devolatilized silicone compositions. In the method, filled silicone compositions are compounded by compounding a filler, processing fluid and silicone polymer in a first compounding apparatus to produce a first dispersed composition and simultaneously compounding a filler, processing fluid and silicone polymer in a second compounding apparatus that shares a common extruder shaft with the first compounding apparatus to produce a second dispersed composition. The system comprises a first compounding apparatus and a sequential second compounding apparatus that shares a common shaft with the first compounding apparatus. An extruder transition section of the system includes an enclosed discharge chamber defined by a first sectioning wall, a second sectioning wall and a contoured lower wall that transitions toward a discharge port and a shaft extends through the first sectioning wall, traverses the chamber and extends through the second sectioning wall.